

**REMARKS**

In the Office Action of May 7, 2003, claims 1-18, 28 and 32 were rejected. Claims 1, 2, 16, 18, 28 and 32 are being amended herein for greater clarity. Claims 59-69 are newly added. No new matter has been added. Upon entry of the foregoing amendments, claims 1-18, 28, 32 and 59 – 69 are pending in the above-identified patent application. Applicants traverse the rejections and respectfully request reconsideration.

**Teleconference with the Examiner**

Applicant thanks the Examiner for the opportunity to discuss the features and benefits of the invention during the teleconference held on August 8, 2003. The participants discussed the prior art of record and distinguishing features of the claims. Participants discussed some proposed amendments to the claims to further clarify differences between the invention and the prior art. Subsequent to the August 8 teleconference, applicant has come to a better understanding of the prior art that was discussed. In light of this better understanding, applicant does not believe that all of the proposed amendments are necessary to distinguish the prior art. In this response, Applicant is making some amendments to further clarify the claims and providing the remarks below.

**Rejection under 35 U.S.C. § 101**

On page 2 of the Office Action, the Examiner rejected claims 1-18, 28 and 32 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Examiner states that, “[t]hey recite no features which place them in the technological arts.” Applicant respectfully traverses.

Title 35 U.S.C. § 101 provides:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

As the Supreme Court has held, Congress chose the expansive language of 35 U.S.C. 101 so as to include “anything under the sun that is made by man.” Diamond v. Chakrabarty, 447 U.S. 303, 308-09, 206 USPQ 193, 197 (1980). In subsequent decisions, the Federal Circuit has sought to clarify the scope and boundaries of 35 U.S.C. 101, holding that patentability under 35

U.S.C. 101 requires that the invention must be: (i) directed to statutory subject matter, i.e., the invention must be a machine, manufacture, composition of matter or a process; and (ii) a “useful” invention.

In State Street Bank & Trust Co. v. Signature Financial Group, Inc., 149 F.3d 1368 (Fed. Cir. 1998), the Federal Circuit Court held that in order to meet the utility requirement imposed by 35 U.S.C. § 101, an invention must produce a “useful, concrete and tangible result,” State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. Applying this test, the State Street Court held that the “transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces ‘a useful, concrete and tangible result’ -- a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.” State Street, 149 F.3d at 1373, 47 USPQ2d at 1601.

In re Alappat, 33 F.3d 1526 (Fed. Cir. 1994), provides another example of a useful, concrete and tangible result. The Alappat Court held that claims drawn to a rasterizer for converting discrete waveform data samples into anti-aliased pixel illumination intensity data to be displayed on a display means were held to be directed to patentable subject matter since the claims defined “a specific machine to produce a useful, concrete, and tangible result.” In re Alappat, 33 F.3d 1526, 1544. Accordingly, computer based systems and software that manipulate financial information (State Street) or display relationships between information representing signal data (Alappat) are sufficiently “real world” to meet the useful, concrete and tangible test enunciated by the State Street Court.

Likewise, in AT&T Corp. v. Excel Comm., the Court found that claims related to deriving a billing value using a simple Boolean mathematical principle constituted patentable subject matter under 35 U.S.C. § 101. 50 U.S.P.Q.2d 1447, 1451-52 (Fed. Cir. 1999). Thus, as stated by the U.S. Patent and Trademark Office, “an abstract idea when practically applied to produce a useful, concrete and tangible result satisfies Section 101.” See, e.g., <http://www.uspto.gov/web/menu/pbmethod/trangmaterials.ppt>

The Manual of Patent Examining Procedure provides guidance for distinguishing between that which is useful, concrete and tangible and that which is not. The MPEP Version 8,

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Section 2106 provides that the “[o]ffice personnel have the burden to establish a prima facie case that the claimed invention as a whole is directed to solely an abstract idea or to manipulation of abstract ideas or does not produce a useful result. Only when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under 35 U.S.C. 101.” (Emphasis added). Having reviewed the law regarding the utility requirement under 35 U.S.C. 101, we next turn to applicant’s claims.

The Examiner rejected claims 1-18, 28 and 32, of which claim 1 is representative. Claim 1 as amended recites: “A computer based method for displaying transactional information regarding the buying and selling of items in a system where orders comprise a bid type or an offer type, and an order is generated for a quantity of items at a specific value.” Applicant submits that claim 1 meets the statutory subject matter requirement of 35 U.S.C. 101. In particular, claim 1 is directed to a statutory class, i.e. a process or “method,” and it recites a specific application, i.e. it is a computer based method for “displaying transactional information regarding the buying and selling of items.” This application produces a useful, concrete and tangible result. The display of transactional information is a concrete, tangible result that is useful for, among other things, enabling a trader to “infer that the market is stable, and the value for the item will not be dramatically driven up or down in the near future” (p. 12, ll 2-4) and/or to “anticipate the market and quickly adjust his or her trading plans to take advantage of the information.” (p. 12, ll. 11-12). The subject matter of claim 1 therefore satisfies the requirements of Section 101.

Claims 2-18, 28 and 32 likewise satisfy the requirements of Section 101. Claims 2-18 depend from claim 1. Claim 28 recites “a computer based method for placing an order for an item at a desired value for a desired quantity.” Claim 32 recites “a computer based method of displaying trading activity of a plurality of traders.” Like claim 1, claims 28 and 32 are directed to a statutory class, i.e. a method, and recite a useful, concrete and tangible application, i.e. “placing an order for an item at a desired value for a desired quantity” and “displaying trading activity of a plurality of traders,” respectively. Thus, each of the rejected claims meets the statutory subject matter requirements of Section 101.

Rejection under 35 U.S.C. § 102(b) over  
Silverman

On pages 2 through 3 of the Office Action, the Examiner rejected claims 1, 3-9, 12 and 16-17 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,136,501 to Silverman et al. ("Silverman"). Because Silverman fails to show every element recited in the claims, applicant respectfully traverses and requests reconsideration.

For purposes of a comparison with Silverman, Claim 1 may be taken as representative of the rejected claims. Claim 1 calls for a computer based method comprising the steps of "displaying a plurality of bid icons" and "displaying a plurality of offer icons". Claim 1 further calls for such icons being displayed "at a location along a first axis of values". Silverman, at the very least, does not show any of these elements.

Silverman shows a matching system for trading instruments which matches bids and offers for goods subject to credit limits placed upon traders by their trading partners. (Silverman, Abstract). Silverman states that their work provides, "a matching system for trading instruments in which bids are automatically matched against offers for given trading instruments for automatically providing matching transactions in order to complete trades for the given trading instruments." (Silverman, col. 3, 18 – 22). The matching system disclosed by Silverman includes databases that store information regarding orders. (Col. 4, ll. 3-39). Silverman discloses using a distributed "book structure" in its system. (Col. 12, ll 33-37). Figures 4-5 and 13-18 of Silverman are illustrative diagrams of logical models of a book market. These Figures are referenced in the disclosure of Silverman to help illustrate how the disclosed matching engine operates. The information stored in the databases can be used to generate displays at keystations 24 (shown in Figure 1). (Col. 10, ll. 6-9; Col. 11, ll. 3-4).

Silverman does not show, much less suggest, any particular computer display or method for displaying information relating to bids or offers. Rather, Silverman only shows a system for matching bids and offers and communicating orders between a central host and keystations. In addition, Figures 4-5 and 13-18 of Silverman do not disclose drawings in which information is being displayed along an "axis." Rather, the drawings are merely logical models that illustrate order quantities arranged from a highest absolute price value to a lowest absolute price value.

ABS VALUE    LOWEST — HIGHEST

Accordingly, independent claim 1 as amended distinguishes over the asserted Silverman '501 patent, at least by reciting any one or more of the steps of "displaying a plurality of bid icons, each corresponding to a bid for a quantity of items, each bid icon at a location along a first axis of values" and "displaying a plurality of offer icons, each corresponding to an offer type order for a quantity of items, each offer icon at a location along the first axis of values."

The remaining claims 3-9, 12 and 16-17 depend ultimately from claim 1, and are patentable over Silverman for at least the same reasons that claim 1 is patentable over Silverman.

Applicants therefore respectfully submit that Silverman fails to anticipate the subject matter of claims 1, 3-9, 12, and 16-17.

**Rejections under 35 U.S.C. § 103(a)**

On pages 4 through 5 of the Office Action, the Examiner rejected claims 10, 11 and 13-15 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,136,501 to Silverman et al. ("Silverman"). On page 5 of the Office Action, the Examiner rejected claim 2 under 35 U.S.C. § 103(a) as being obvious over Silverman in view of U.S. Patent No. 5,619,631 Schott et al. ("Schott"). On pages 5 through 6 of the Office Action, the Examiner rejected claims 28 and 18 under 35 U.S.C. § 103(a) as being obvious over Silverman in view of U.S. Patent No. 6,188,403 to Sacerdoti et al. ("Sacerdoti"). On page 6, the Examiner rejected claim 32 under 35 U.S.C. § 103(a) as being obvious over Silverman in view of the publication entitled "How the Futures Markets Work" by Jake Bernstein, p.62 and figure 5.1 ("Bernstein"). Applicant respectfully traverses each of these obviousness rejections and requests reconsideration.

As discussed above, Silverman does not disclose, teach or suggest various limitations of claim 1. For example, Silverman does not teach, disclose or suggest a display or a method for displaying market information. In addition, none of the other references cited by the Examiner (Schott, Sacerdoti, and Bernstein) teach, suggest or disclose displaying bid or offer icons. Accordingly, applicant respectfully submits that Silverman, alone or in combination with the other references, fails to render obvious any of claims 2, 10, 11, 13-15, 18, 28, 32 and 35.

Claims 2, 10, 11 and 13-15, 18 depend either directly or indirectly from independent claim 1 and are patentable over Silverman for at least the same reasons that claim 1 is patentable over Silverman, both alone and in combination with the other cited references.

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In addition, Silverman and Sacerdoti both fail to teach, suggest or otherwise render obvious amended independent claim 28. Silverman does not disclose, teach or suggest a method for placing an order. Furthermore, Silverman does not disclose a method of displaying a ~~See~~ <sup>More</sup> plurality of order tokens. Rather, as discussed above with respect to claim 1, Silverman discloses a matching system and does not disclose any particular way to display market information. Furthermore, the illustrative logical models in the Figures of Silverman do not disclose a drawing in which order tokens are in locations with respect to an axis. Accordingly, independent claim 28 distinguishes over Silverman at least by reciting any one or more of the steps of "displaying a plurality of order tokens having different values", "receiving a selection for an order token", and "moving the order token to a user specified location with respect to a value axis and a quantity axis which corresponds to the desired value and quantity for the order." Sacerdoti describes a 3-dimensional graphics generation and display application that can provide visual display of information retrieved from a database. (Abstract). Sacerdoti fails to disclose, teach or suggest a method for placing an order. Sacerdoti similarly fails to disclose, teach or suggest displaying order tokens or icons. According, Applicant respectfully submits that Silverman, alone or in combination with Sacerdoti, does not render claim 28 obvious.

Bernstein describes the layout of the floor of a conventional trading pit. Bernstein fails to disclose, teach or suggest a computer based method of displaying a trading pit. Bernstein further fails to disclose, teach or suggest the "determining for each trader, an activity level, representative of market transactions of the trader," and "displaying for each trader a token representing the trader at a location in the trading pit which corresponds to the activity level of the trader" elements recited by amended claim 32. Accordingly, Applicant respectfully submits that Silverman, alone or in combination with Bernstein, does not render claim 32 obvious.

Therefore, for at least the foregoing reasons, Applicants submit that claims 2, 10, 11, 13-15, 18, 28, 32 and 35 are patentable over the individual and combined references.

New claims 59-69 are presented herewith. No new matter has been added.

In light of the foregoing, applicant submits that the present application is in condition for allowance and notice to that effect is hereby requested.

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If for any reason an insufficient fee has been paid, the Examiner is hereby authorized to charge the insufficiency to Deposit Account No. 05-0150. If the Examiner has any questions or needs any additional information, the Examiner is invited to telephone the undersigned attorney at 650-856-6500.

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